DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007758
Date Inspected: 09-Jul-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 730
OSM Departure Time: 1630
Location: Muroran, Japan

CWI Name: Chung Fu Kuan

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower, Jacking, and Deviation Saddles

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

Fabrication Shop #4:

Grinding Operation in process on Saddle: Tower Saddle Segment T1-2

The QA Inspector observed JSW personnel performing the grinding operation on the partial-joint penetration (PJP) groove welds on the stiffener plates welded to the rib, stem and trough of tower saddle T1-2. The completed welds were being ground to a visual acceptable profile prior to Quality Control (QC) Inspector Mr. Chung Fu Kuan performing a visual inspection for acceptance in accordance with the approved shop drawings and AWS D1. 5-2002 Section 3.6. The QA Inspector observed that the grinding operation was in process at the end of the QA Inspectors' shift.

Weld Operation in process on Base Plate of Saddle: Tower Saddle Segment T1-3

The QA Inspector observed the complete-joint penetration (CJP) weld operation on the rib welded to the base plate of tower saddle T1-3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the PJP weld operation that the minimum preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. M. Kashiwada (08-2008) on weld joint no. 9Y-12L-3, Mr. K. Nakasato (91-2247) on weld joint no. 9Y-12L-1, and Mr. M. Kubota (74-3666) on weld joint no. 9Y-12L-2 were in compliance with WPS SJ-3012-2 per the SMAW process in the (1G) flat position using (5.0) mm diameter LB-52A electrode. The QA Inspector observed that the CJP groove weld operation was in process at

the end of the QA Inspectors' shift.

NDT Operation pending completion on Saddle: West Deviation Saddle Segment W2-W1
The QA Inspector observed that the magnetic particle test (MPT) inspection (dry method) has been completed on the partial-joint penetration (PJP) groove welds and adjacent base metal of west deviation saddle W2-W1. The QA Inspector observed that there are areas marked up by Nikko Inspection Services (NIS) NDT QC Inspectors' that will require rework- (grinding) to determine the extent of the rejectable indications detected. On this date, the QA Inspector observed that no other work was performed on west deviation saddle segment W2-W1.

Grinding Operation in process on Saddle: West Deviation Saddle Segment W2-W2
The QA Inspector observed the JSW personnel were performing the grinding operation around the radius of the cope holes- (weld access) after the partial-joint penetration (PJP) groove weld operation was completed on the rib (cast section) to rib plate (built-up section) of west deviation saddle segment W2-W2. The QA Inspector also observed that the JSW personnel were performing the grinding operation on the cover passes of the PJP groove welds to grind to a visual acceptable profile prior to Quality Control (QC) Inspector Mr. Chung Fu Kuan performing a visual inspection for acceptance in accordance with the approved shop drawings and AWS D1. 5-2002 Section 3.6. The QA Inspector observed that the grinding operation was in process at the end of the QA Inspectors' shift.

Weld Operation of Temporary Attachments in process on Saddle: West Deviation Saddle Segment W2-W3
The QA Inspector observed JSW welding personnel Mr. T. Isobe (08-5176) welding temporary attachments- (stay plates) in between the trough section to (weld surfacing layers) previously deposited on the cast section of west deviation saddle segment (W2-W3) per the FCAW process in the (2F and 3F) horizontal and vertical positions. The purpose of welding the stay plates in between the trough section is for dimensional and distortion control prior to the start of the weld operation on the cast section to the built-up section. The QA Inspector also observed JSW welding personnel Mr. Y. Maeyama (92-5234) welding a lifting lug onto the end rib (cast section) per the FCAW process in the (3G) vertical position. The location of the lifting lug was on an area- (built-up weld pad) that had previous deposited weld surfacing layers onto the cast section. The Quality Control Inspector Mr. Chung Fu Kuan informed the QA Inspector that JSW uses their in-house weld procedure specifications to perform the weld operation of the lifting lug on the end rib cast section of the west deviation saddle segment. The QA Inspector observed that the weld operation of the temporary attachments was in process at the end of the QA Inspectors' shift.

Foundry:
Weld Operation on Cast Saddle: East Saddle E2-E1 (cast saddle)
The QA Inspector observed the repair weld operation on excavated areas on exterior of the trough (opposite the ID side) on east saddle E2-E1. The QA Inspector observed Quality Control (QC) Inspector Mr. T. Imai verify prior to and during the weld operation that the minimum preheat temperature of 150 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. Y. Suzuki (03-2302) and Mr. H. Sato (69-2697) were in compliance with WPS SJ-3026-4 per the SMAW process in the (1G) flat position using (5.0) mm diameter E9016-G electrode. The QA Inspector observed that the repair weld operation was in process at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the

applicable contract specifications.

Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Guest,Kittric	QA Reviewer